

2015 Annual Public Meeting
Interagency Steering Committee on Multimedia Environmental Models (ISCMEM)
October 27 - 29, 2015
U.S. Army Corps of Engineers – Hydrologic Engineering Center – Davis, CA
Main Conference Room
Theme: Environmental Modeling for Complex Decision Analysis

October 27, 2015 (Tuesday)

08:00 *Meet at HEC for Tours – (Yolo Bypass and Putah Creek)*

October 28, 2015 (Wednesday)

08:00 **Registration**

08:15 **Welcome and Opening Remarks** - Pat Deliman (ISCMEM Chair) and John Hickey (USACE HEC)

08:30 **Keynote: Integrated Environmental Modeling at HEC** Chris Dunn (USACE)

09:15 **System Integration** Gene Whelan (EPA)

- EPA's Science Vocabulary: Providing a Terminology Infrastructure to Support Systems Integration Lynne Petterson/Gail Hodge
- Watershed and Economic Development Ontology Rajbir Parmar

10:15 **Break**

10:30 **System Integration** Gene Whelan (EPA)

- Preparing Science Software Components for Web-enabled Reuse and Interoperability..... Gerry Laniak
- Quantitative Environmental Domain S. Thomas Purucker
- Chemical Transformation Simulator Caroline Stevens

12:00 **Lunch**

13:00 **Keynote:** Jay Lund (Center for Watershed Sciences)

13:45 **System Integration** Gene Whelan (EPA)

- Hydrologic Nutrient Modeling within a Watershed-based Workflow YongPing Yuan

14:15 **Uncertainty and Parameter Estimation** Tom Nicholson (NRC)

- The Scientific Method: Bayes Theorem, Advanced Search Algorithms, Likelihood Functions & Diagnostic Model Evaluation Jasper Vrugt

14:45 **Break**

15:00 **Uncertainty and Parameter Estimation** Tom Nicholson (NRC)

- The Role of Integrated Groundwater-Surface Water Modeling and Uncertainty in Decision-Making for a Sustainable Future Thomas Harter
- Modeling Uncertainties in Urban Hydrology with Focus on Loss from Infrastructures .. Boris Faybishenko

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16:00	Environmental Flows and Ecohydrology	Brenda Rashleigh (EPA)
	• Ecological Analyses with the Ecosystem Functions Model	John Hickey
	• Trinity River Modeling (Yurok Tribe)	DJ Bandrowski

17:00 **Questions from the Public/Adjourn**

October 29, 2015 (Thursday)

08:00	Environmental Flows and Ecohydrology	Pierre Glynn (USGS)
	• A Habitat Suitability Index Free Method of Estimating Fish Response to Changed Discharge and Habitat	David Smith
	• The National and Regional Predictability of Hydrologic Metrics and Their Relevance to Aquatic Biota	Ken Eng

09:00	Environmental Risk Analysis	Ming Zhu (DOE)
	• Hanford Site-wide Risk Review	David Kosson

09:30 **Break**

10:00	Watershed Modeling	Billy Johnson (USACE)
	• Overview of NRC Development Efforts for Low Probability Rainfall Events	Joe Kanney
	• Numerical Modeling of Local Intense Precipitation Processes	Levent Kavvas
	• Overview of HEC-HMS	William Scharffenberg

11:30 **Lunch**

13:00 **Environmental Modeling for Complex Decision Analysis**

Panel Discussion

Panel Leader: Pat Deliman

Panelists: HEC, DJ Bandrowski, David Smith

Session 1 Topics

- Forecasting Responses in Complex Environmental Systems
- Uncertainty Analysis – Implication of Uncertainty for Engineering Design
- Resolution and Time Scale Implications

14:30 **Break**

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October 29, 201 (Thursday)

15:00	<i>Environmental Modeling for Complex Decision Analysis</i>	Panel Discussion
	Panel Leader: Pierre Glynn	
	Panelists: Mike Dettinger, Lisa Lucas, Matthew Bates	
	Session 2 Topics	
	• Climate Change Impacts	
	• Catastrophic Hazards	
	• Ecological Change in the California Bay Delta	
16:30	<i>Working Group Reports</i>	Working Group Chairs
	• WG1 Software Systems Design and Implementation for Environmental Modeling	
	➤ Gene Whelan (EPA), Olaf David (USDA)	
	• WG2 Model Uncertainty Analysis and Parameter Estimation	
	➤ Tom Nicholson (NRC), Mary Hill (University of Kansas)	
	• WG3 Subsurface Reactive Solute Transport Modeling	
	➤ Gary Curtis (USGS), Mark Fuhrmann (NRC)	
	• WG4 Distributed Watershed/Water Quality Modeling	
	➤ Billy Johnson (USACE), Laj Ahuja (USDA)	
	• WG5 Forecasting of Ecosystem Functions and Services	
	➤ Pat Deliman (USACE), Brenda Rashleigh (EPA), Pierre Glynn (USGS)	
	• WG6 Integrated Monitoring and Modeling	
	➤ Ming Zhu (DOE)	
	Steering Committee Business Meeting	All Agencies (ISCMEM)
17:00	<i>Questions from the Public/Conclude Meeting</i>	
17:30	End	

Web Meeting Information - USA Toll Free: 888-273-3658 ACCESS CODE: 5165285 SECURITY CODE: 1021

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